

William Petty proposes in his *Double proportions* ; for I have not read the Tract; and if I understand you judge the thing rational, I shall endeavour to procure the Instruments , and proceed to practice , and shall pay you my hearty thanks with a ready return of any service that lies in me, being, Sir,

Stony-Easton, June 17.

Your obliged and humble Servant,

1676.

J. Beaumont Jun.

An Account of some Books :

- I. *Ephemeridum Medico-physicarum Germanicarum ANNUS IV & V, Anni 1673 & 1674, &c. Cum Appendice* : Francofurti & Lipsiæ, 1676. in quarto.

THIS industrious Collection contains 210 Observations ; among which not a few seem considerable and uncommon ; *E.g. Menses* coming at 8 and 9 years of age : A Prince that lived a great while with great and dangerous diseases : The Errors of Nature in one part, supplied by another : A preservation from drunkenness by the gaping of a Suture of the Head : A cure of the Scurvy by a Dog's licking the Patient in the parts most affected, together with the cure of that Dog , becoming altogether scabby, by *Mercurius dulcis* : Two men monthly troubled with the Hæmorrhoids, from their youth, the one unto the eightieth, the other to the ninetieth year of his age : An Ague recurring every eighth day : Worms of divers sorts fallen down with Snow in *Hungary*, not far from the Copper-mines of that Country : Of a young woman, that though she did for a while drink wine, yet came afterwards so to abhor it, that she could take nothing physical , that had any thing prepared of Tartar in it, but did sweat, and faint away when it was given her, though she knew nothing of it before hand : The juyce of Hemlock mixed only with a little Sugar, for several days taken inwardly, to the quantity of three ounces at a time, to allay the heat of the Liver ; follow'd by no other noxious effect but a debilitation of the strength of the Patient : The Preparation of the Helmontian *ludus*, together with an account, that the Oil, drawn of Black Flints, such as we strike fire with , cures the Stone of the Bladder ; as also, that the Spirit of Sea-salt, especially of *Spanish*-salt, is a potent remedy against the Strangury : A wound in the Breast and Lungs not mortal : Fontinels or Issues naturally arising in the Arms and Feet, and curing a Patient of a violent Head-ache, and troublesome pustules of the Head ; as also of an Issue in the

the *abdomen*, curing a woman of her Hydropical distemper : Two persons preserved alive after they had drunk (unawares) a good quantity of *Aqua fortis* : Several men cured of the Gout by a decoction of *Trifolium palustre*, (Marsh-trefoil or Buck-beans :) Many Stones voided by siege : Fomentations made with the decoction of Emmets, very anti-paralytical : Cinnamon-trees, sent out of *Ceylon* in Chests, filled with the native Earth of that Island, transmitted into the Low Countries, and there thriving very well, without any considerable change of their quality : A Girl of eight years old, greedily eating Mortar great store, without any other harm than paleness of her looks : A Man at *Prage*, from his all-devouring quality called *πύρρασθ*, devouring a whole live Hog by piece-meal, with the bristles on : Of some Men of unusual strength ; as, of a Prince of *Bavaria*, that could lift up from the ground a stone of three hundred and forty pound weight, and throw it from him to a considerable distance : Of a Man, that upon an Apoplexy had quite forgot all reading, and knew never a letter, yet was able readily to write any of the Languages by him known before, though unable to tell any of the letters thus written by himself : *Quere* ; Whether this case might not be like that of those that can write with their Eyes shut ; the phancy working in the act of writing, but the memory failing in knowing and distinguishing the letters : Of a young Man, whose Hands, and those only, at certain times, smelt of Brimstone, without any contact of Brimstone : Of the Spleen cut out of a man alive, the Patient surviving his Spleen for many years : Of many Horses breeding the Stone, as well as Men, and of the Bezoar-like virtue of such stones : Of the Juyce of Vines frozen, and that Ice representing the figures of Vine-leaves and Grapes : An Anatome of a Tortoise, shewing, that what the ribs are in other Animals, the upper-shell is in Tortoises, and that to that upper shell are firmly fastned the spinal vertebra's ; so that this Animal cannot go out of its house, as Snails do : Of a Statue, resembling a Man, and representing the Circulation of the Blood, &c.

To these Observations is added an Account of the Life, Studies, Writings, Correspondence, and Death of the Learned *Dr. Sachsium*. To which is subjoyn'd an Appendix, taking
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notice of several Tracts published by divers Philosophers and Physicians of *Germany*; viz. The three Centuries of the Medicinal Miscellanies of Dr. *Velfbius*: The History of Dr. *Elsholsius* of a *Steoma* successfully cut and cured, together with his Epistle of a Conception in the *Tuba Uteri*: Some observations of Dr. *Balduin*; concerning 1. the Regermination of Silver, by a new artifice; 2. the Urns of the pagan *Germans*. 3. a Factitious stone, shining in the dark, after it hath been a while expos'd to the Sun, as the natural *Bolonian* stone is said to do, though that artificial one is affirmed to do it in a more excellent manner, forasmuch as, when after the imbibition of the Solar light it is cast into a glass-full of Spirit of Niter, it doth notwithstanding shine in the dark; and that more is, when 'tis taken out of the said liquor, and dried again in the dark to make it lose its light, and then put again into a glass-full of cold water, and exposed to the day-light, it will for all this resume a splendid brightness even in the cold water it self: Again, being again taken out of the cold water and dried, and deprived of its light in the dark, and then put into a hot oven, it will there recover its light, though the room be dark. There is further mention'd and described in this work Dr. *Mentzelius* his Tract, comparing this Shining stone of Dr. *Balduin* with that of *Bolonia*; as also, Dr. *Wedelius*'s Experiments about the Extraction of the Volatil Salt of *Tartar*; long since performed here by Dr. *Daniel Cox*, whom he also cites for it: Likewise, an Epistle of Dr. *Reisselius* to the *German* Academics about some *Desiderata* in Physick, hitherto not much considered, or cared for; where mention is made of an *Historia Medica*, expected from Dr. *Schaeferus*. Lastly, an Account given by Dr. *Bernitz*, the King of *Polands* chief Physician, concerning some Anti-podagrical remedies, made use of in the cure of *Uladislaus IV.* King of that Country; where, occasionally, the Herb is named and described, wherewith the Eastern Nations tinge not only the Mains and Tails of their Horses, but also some parts of their own body.

II. *Nouvelle Methode en Geometrie pour les Sections des Surfaces Coniques & Cylindriques; qui ont pour Base des Cercles, ou des Paraboles, des Ellipses, & des Hyperboles; Par Ph. de la Hire, Parisien. A Paris, 1673. in quarto.*

THis Author, (who came but very lately to my hands) informs his Reader, in his *Preface*, that he would not have published this Book, if he had not been perswaded, that the simplicity and plainness of the New Optical or Projective Method, by him found out, after the *broutillon-projet* or rough-draught of M. *Des Argues*, would be of great use to the studious of this subject, and if he had not been aware, that no Writer had as yet taken this way by him insisted on. For, he saith, that in his first Proposition he demonstrates all the proportions of the Lines, which coming from one point, or being parallel among themselves; and meeting the Sections, are cut by these Sections, or by the lines that joyn the contacts, or by other Tangents: which he affirms doth comprehend a great part of the Propositions of *Apollonius*; and many others also of which he hath not spoken: Which seems to him very easie to understand, forasmuch as it is nothing else but a continual repetition of the application of one only line cut in three parts, which Line he calls cut *harmonically*; not that the parts taken separately are in harmonical proportion, but that, by taking one of the extreames for one, and the same with that of the middle for another, and the whole for the last, these three lines shall be in harmonical proportion.

After he had dispatched this Proposition, he saith, that he was resolved to have concluded his Book with the Power, Relation, or Habitudes of the *Ordinates* by comparing them to the Rectangles of the parts of their diameters; but that he found himself insensibly engaged to add to it some other Propositions of a more useful kind, and which might easily be demonstrated by the First; and then, the Propositions of the Ancients about the *foci* or *puncta comparationis*; and the demonstrations by him given of them he affirms to be different from those of others, that so this work of his might not only be entire, but new.

He hath also given a method of demonstrating the Sections of the Conic surfaces that have for base Parabola's, Ellipses and Hyperbola's ; as also those of Cylindrical surfaces, which have for base the same Curves as well as the Circle. Of the Usefulness of all which he believes every one that is knowing in Geometry is sufficiently perswaded.

Since the publication hereof, this same Author hath printed in *Latin* a sheet, with elegant Schemes belonging thereto, *De Cycloide & Sectionibus Conicis* ; wherein he promises a continuation of this doctrine ; which, together with what is already extant, we expect wholly in *Latin*, and it is the more desirable, because we find him affirming, that he hath studied the Mathematicks, and especially this part of them, for many years.

III. *Ophthalmographia, sive, Oculi ejusque partium Descriptio Anatomica. Auth. Guil. Briggs A.M. & Coll. Corp. Christi in Acad. Cantabr. Socio. Cantabrigiæ 1676. in 12º.*

THIS Author having premised some general Considerations touching the Eye, and therein given an account, amongst other particulars, of the reason why there is made but one sensation by both Eyes, and why sometimes the object appears to be double ; descends to the examination of the parts of that organ ; and first, to the *Muscles*, and their Uses : Then to the *Coats*, where he considers, why the *Uvea* or *Choroides* is black in Men, but of divers colours in Brutes ; why the Northern Nations have generally grey, but those of the Torrid zone, black eyes ; and why the *Iris*, proceeding from the *Uvea*, is of so variegated a colour in some Individuals ; concerning which latter he is of opinion, that that comes from the extream fine texture of the filaments of the *Iris*, by way of undulation disposing the lucid matter, from a different reflexion, into such colours. Further, when he discourses of the *pupilla*, and its contraction and dilatation, together with the cause of that motion, he suggests, that, because the pupil cannot be duly dilated, whilst we lift up our eyes, and consequently not admit so many rays as otherwise, the Stars do appear less about the Meridian, than in the Horizon. Again, when he examines the *Retina*, he takes notice, that that coat is made up of medullar fibres, betwixt which and the brain there intercedes a very great communication ; upon which account he holds it to be the principal organ

organ of vision ; undertaking to answer those Reasons and Experiments, that have been alledged by Monsieur *Mariotte* and Monsieur *Picard* in favour of the *Chorooides*.

Having done with the *Tunics*, he passes on to the *Humors*, and renders a reason of their different density. Then he assigns the Use of the *Aqueous* humor ; and recites a remarkable case of an Old mans Sight restored ; who being seventy years of age, and having used Spectacles for the space of ten years, had, upon taking a great cold, this humor so repaired, that, when the Author wrote this Discourse, that Ancient man had then for the time of six years used no Spectacles at all, but been able without them to read the smallest print.

Speaking of the *Crystallin* humor, he observes, that the anterior part thereof, in Man and Quadrupeds, resembles the segment of a greater Ellipse, and the posterior, that of a smaller, that so the rays being duly refracted may pass as they ought into the *retina* : Whereas in *Fishes* the figure of this humor is more globous, to the end that it might the more refract the rays, which passing through water, as a medium of the like density with it, would otherwise not acquire their due refraction. As to the *Vitreous* humor, he judges it to be of that nature, that being once lost, it *can never be* repaired, whatever *Kerckringius* do pretend to the contrary ; though our Author thinks, the *Aqueous* humor *may*. The Use of these Humors appears in this, that vision chiefly depends from the refraction of the rays transmitted through these humors.

Next, he treats of the *Arteries*, *Veins*, and *Nerves* of the Eyes, together with the *Motion* of the *Animal spirits* in them. Here, among other particulars, he shews, that the Fibres of the Optic Nerve about the place of their union are not at all confounded, but run on from the Brain distinctly ; as also, that when the *nervi motorii* near the *infundibulum* are by some sharp humor irritated, the Eyes will be thereby convulsed ; concerning which he relateth a remarkable instance of a young man that died of such a convulsion. As to the *Motion* of the *Animal spirits* in the Muscles of the Eyes and in the Optic Nerve, he conceives, that, when that is gentle and even, we apprehend things distinctly ; but when 'tis uneven and desultory, we then have confused phantasms of things, as it happens to young Tobacconists and young Navigators, growing
giddy

giddy and sick. Touching the reason, why *Cats* and *Horses* are sensible of the least impressions of light, he alledges it to be this, that they have a great stock of animal spirits, keeping the membrans of the Eyes very well distended: Where he takes notice of a Man, of a hot temper, by him known, who had such Cats-eyes, that he could read a Letter in the dark, where he, the Author, could hardly see the Letter it self. The cause, why some Animals, as *Turkies* and *Buffalo's* cannot endure the sight of *Red*, he conceives to be, that the rays of light are thence cast with a too rapid motion upon their animal spirits, and thereby enrage them; there being required a due proportion between the motion of the Spirits and the Lucid rays.

Further, he takes notice of the *Glanduls* and *Lymphatic* vessels of the Eyes; where he gives an account, why Women and Children are so prone to cry; why tears are salt; why people do weep both in sudden Joyes, and in Sadness, as a'fo in sneezing, violent laughing, and eating of very sharp things, as Mustard, &c.

After this, he treats of the different Formation of the Eye in divers Animals, and even in Individuals of the same *species*. Here he considers the peculiar structure of the Eyes of Owles, Bats, Cats, Fishes, Birds, Oxen, Horses, Sheep, &c. yet without noting the extraordinary fabrick of the *Cameleon*.

Lastly, he instructs young Anatomists in the manner of the dissection of the Eye, having first shew'd the manner how Vision is performed.

BESIDES these *three* Books, we cannot but take notice here of a *fourth*, which, though a very small one, yet appears very useful, more and more to promote in these Kingdoms all Hortulan affairs: It is intituled;

Nurseries, Orchards, Profitable Gardens, and Vineyards encouraged; the present Obstructions removed, and probable Expedients for the better Progress proposed: For the general benefit of his Majesties Dominions, and more particularly of Cambridge, in the Champain-Countries, and Northern parts of England: In several Letters out of the Country, by Dr. John Beale and Mr. Anthony Lawrence.

Of these Letters, though hitherto there be printed but Two; yet

yet it is presumed, that more will shortly follow from the same hands.

A Declaration of the Council of the *Royal Society*, passed *Novemb. 20. 1676*; relating to some Passages in a late Book of Mr. *Hooke* entituled *Lampas, &c.*

WHereas the Publisher of the Philosophical Transactions hath made complaint to the Council of the Royal Society of some Passages in a late Book of Mr. Hooke, entituled *Lampas, &c.* and printed by the Printer of the said Society, reflecting on the integrity and faithfulness of the said Publisher in his management of the Intelligence of the said Society: This Council hath thought fit to declare in the behalf of the Publisher aforesaid, That they knew nothing of the Publication of the said Book; and further, That the said Publisher hath carried himself faithfully and honestly in the management of the Intelligence of the Royal Society, and given no just cause of such Reflections.

THe Council having thus justified the Publisher; he shall only add that part of a Letter, written to him by Mr. *Christian Hugens de Zulichem* the 20th. of February. 1675, which relates to the taking out a Patent of his, the said M. *Hugens's*, Invention; and then let the world judge of the Post-scriber's accusation about an endeavour of defrauding him of his Contrivance: The words of the said Letter, Englished, are these;

For the rest, Sir, if you believe, that a Priviledge (so he calls a Patent) in England would be worth something, and that
either

(750)

either the Royal Society or You might make some advantage thereof, I willingly offer you all I there might pretend to.

So that, if there was a desire in the Publisher to take out a Patent, it was for no other contrivance, but M. *Hugens's*, formerly sent to the *Royal Society*, and printed in *Numb. 112.* of these Transactions.

Errata.

P.711.l.14. del. *Longitude found by H. Bond Sen.* p.716. l.9. r. *the ingeniousness*, *ibid.* l. 13. r. *with the forme r.*

Imprimatur,

Novemb. 23.
1676.

B R O U N C K E R, P. R. S.

L O N D O N,

Printed for John Martyn, Printer to the Royal Society, 1676.